

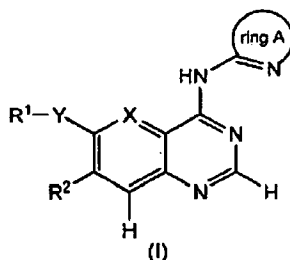
OK TO ENTER: /C.J./

03/06/2009

Appl. No.: 10/593,540
Case No.: BY0042P
Page No.: 2IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (Currently Amended) A compound represented by the formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

X is CH;

Y is oxygen atom or sulfur atom;

R¹ is one group or atom optionally selected from the following (1), (2), (3), (4), (5)

and (6) :

(1) a five- or six-membered heteroaryl group having one to three hetero atom(s) selected from the group consisting of nitrogen atom, sulfur atom and oxygen atom in a ring, said heteroaryl group (1) being optionally fused to a phenyl ring;

(2) an aryl group;

(3) a straight-chain or branched lower alkyl group;

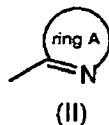
(4) a cycloalkyl group having 3 to 7 carbon atoms;

one of the carbon atoms contained in said group except for a carbon atom bonding to Y, being optionally replaced with an oxygen atom, NH, N-alkanoyl group or a carbonyloxy group said R¹ may have one to three groups, being the same or different, selected from α;

~~(5) a straight chain or branched lower alkenyl group; and~~~~(6) hydrogen atom;~~R² is hydrogen atom or fluorine atom;

ring A is a monocyclic or bicyclic heteroaryl group represented by the formula (II) :

Appl. No.: 10/593,540
Case No.: BY0042P
Page No.: 3



said ring A optionally having one to three substituent groups selected from β ;

substituent group α is selected from the group consisting of:

- a lower alkyl group optionally substituted with one to three halogen atom(s);
- a cycloalkyl group having 3 to 7 carbons;
- a lower alkoxy group;
- a hydroxyl group;
- a hydroxyalkyl group;

said hydrogen atom of the hydroxyl portion of the hydroxyalkyl group being optionally substituted with a lower alkyl group;

- an alkanoyl group;
- halogen atom;
- oxy group;
- a lower alkylsulfonyl group;
- a lower alkylsulfonylamino group;
- a mono- or di-lower alkylcarbamoyl group;
- a mono- or di-lower alkylcarbamoylalkyl group;
- a mono- or di-lower alkylsulfamoyl group;
- an amino group;
- a mono- or di-lower alkylamino group;
- cyano group; and

a five- or six-membered heteraryl group which may have one to three hetero atom(s) selected from the group consisting of nitrogen, sulfur and oxygen;

substituent group β is selected from the group consisting of:

- a lower alkyl group;
- a lower alkoxy group;
- a halogen atom;
- a trifluoromethyl group;

Appln. No.: 10/593,540
Case No.: BY0042P
Page No.: 4

a hydroxyalkyl group;
wherein the hydrogen atom of hydroxyl group in said hydroxyalkyl group may be substituted with a lower alkyl group;
an aminoalkyl group;
and wherein the amino group in said aminoalkyl group may be further substituted with a lower alkyl group;
an alkanoyl group;
carboxyl group;
an alkoxycarbonyl group; and
a cyano group.

Claim 2 (Cancelled)

Claim 3 (Original) A compound or a pharmaceutically acceptable salt thereof according to claim 1, wherein R¹ is a group which is optionally selected from the following (1) and (2):

(1) a five- or six-membered heteroaryl group having one to three hetero atom(s) selected from the group consisting of nitrogen atom, sulfur atom and oxygen atom in a ring; said heteroaryl group may form a fused ring with phenyl group; and

(2) an aryl group;
said R¹ may have one to three group(s), being same or different, selected from the above-mentioned substituent group α .

Claim 4 (Previously Presented) A compound or a pharmaceutically acceptable salt thereof according to claim 3, wherein the ring A is selected from the group consisting of: thiazolo[5,4-b]pyridinyl, pyrazinyl, thiadiazolyl and pyrazolyl which may have one to three substituent(s), being same or different, selected from the substituent group β .

Claims 5-7 (Cancelled)

Claim 8 (Previously Presented) A compound or a pharmaceutically acceptable salt thereof according to claim 6, wherein Y represents a sulfur atom.

Appln. No.: 10/593,540
Case No.: BY0042P
Page No.: 5

Claim 9 (Currently Amended) A compound or a pharmaceutically acceptable salt thereof according to claim 1, wherein the compound represented by the formula (I) is selected from the group consisting of;

[6-(4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-thiazol-2-yl-amine,
[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-pyrazin-2-yl-amine,
(6-phenoxyquinazolin-4-yl)-pyrazin-2-yl-amine,
[6-(4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-pyrazin-2-yl-amine,
[6-(4-methyl-4H-[1,2,4]triazole-3-ylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
(6-phenoxy-quinazolin-4-yl)-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(2-fluoro-phenoxy)-quinazolin-4-yl]thiazolo-[5,4-b]pyridin-2-yl-amine,
[6-(1-methyl-1H-imidazol-2-ylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(pyridin-2-ylsulfanyl)-quinazolin-4-yl]-thiazolo-[5,4-b]pyridin-2-yl-amine,
[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-(3-methyl-[1,2,4]thiadiazol-5-yl-amine,
[6-(pyrimidin-2-ylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(4-methyl-4H-[1,2,4]-triazol-3-ylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]-pyridin-2-yl-amine,
[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-thiazolo[4,5-b]pyrazin-2-yl-amine,
benzothiazol-2-yl-[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-amine,
[6-(3H-[1,2,3]triazol-4-ylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
(1-methyl-1H-pyrazol-3-yl)-[6-(4-methyl-4H-[1,2,4]-triazol-3-ylsulfanyl)-quinazolin-4-yl]-amine,
[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-pyrimidin-4-yl-amine,
(5-methyl-pyrazin-2-yl)-[6-(4-methyl-4H-[1,2,4]-triazol-3-ylsulfanyl)-quinazolin-4-yl]amine,
[6-(4-methyl-4H-[1,2,4]triazol-3-ylsulfanyl)-quinazolin-4-yl]-pyrazin-2-yl-amine,
(5-chloro-thiazol-2-yl)-[6-(4-methyl-4H-[1,2,4]-triazol-3-ylsulfanyl)-quinazolin-4-yl]-amine,
[6-(2-fluoro-1-fluoromethyl-ethoxy)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
(6-isopropoxy-quinazolin-4-yl)-pyrazin-2-yl-amine,
(6-isopropoxy-quinazolin-4-yl)-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(2-hydroxy-(1S)-methyl-ethoxy-quinazolin-4-yl)]-thiazolo[5,4-b]pyridin-2-yl-amine,
(6-cyclopentyloxy-quinazolin-4-yl)-thiazolo[5,4-b]-pyridin-2-yl-amine,
[6-(2-fluoro-1-fluoromethyl-ethoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(2-fluoro-1-fluoromethyl-ethoxy)-quinazolin-4-yl]-isoxazol-3-yl-amine,

Appl. No.: 10/593,540
Case No.: BY0042P
Page No.: 6

[6-(2-fluoro-1-fluoromethyl-ethoxy)-quinazolin-4-yl]-(5-fluoro-thiazolo-[5,4-b]pyridin-2-yl)-amine,
[6-(2-fluoro-1-fluoromethyl-ethoxy)-quinazolin-4-yl]-(5-methoxy-thiazolo[5,4-b]pyridin-2-yl)-amine,
(6-methoxy-quinazolin-4-yl)-pyrazin-2-yl-amine,
(6-hydroxy-quinazolin-4-yl)-thiazolo[5,4-b]-pyridin-2-yl-amine,
(4-methyl-1,3-thiazol-2-yl)-6-(4-methyl-1,2,4-triazol-3-ylsulfanyl)-quinazolin-4-yl-amine,
(5-methyl-1,3-thiazol-2-yl)-6-(4-methyl-1,2,4-triazol-3-ylsulfanyl)-quinazolin-4-yl-amine,
6-(methylbenzoate-2-yl)sulfanyl-thiazolo[5,4-b]-pyridin-2-ylquinazolin-4-yl-amine,
6-(2-hydroxymethylphenylsulfanyl)-thiazolo[5,4-b]-pyridin-2-ylquinazolin-4-yl-amine,
6-(pyrazin-2-ylsulfanyl)-thiazolo[5,4-b]pyridin-2-ylquinazolin-4-yl-amine,
6-(3-fluoropyridin-2-ylsulfanyl)-thiazolo[5,4-b]-pyridin-2-ylquinazolin-4-yl-amine,
6-(benzoate-2-ylsulfanyl)-thiazolo[5,4-b]pyridin-2-ylquinazolin-4-yl-amine,
6-(3-chloropyridin-2-ylsulfanyl)-(1-methylpyrazol-3-yl)quinazolin-4-yl-amine,
[6-(2-dimethylamino-ethylsulfanyl)-quinazolin-4-yl]-thiazolo-[5,4-b]pyridin-2-yl-amine,
[6-(cyclopentylsulfanyl)-quinazolin-4-yl]-thiazolo-[5,4-b]pyridin-4-yl-amine,
[6-(2-fluorophenylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]-pyridin-2-yl-amine,
[6-(2-methoxyphenylsulfanyl)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(3-chloropyridin-2-yloxy)-quinazolin-4-yl]-thiazolo[5,4-b]-pyridin-2-yl-amine,
[6-(3-cyanopyridin-2-yloxy)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(3-carboxamidopyridin-2-yloxy)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(pyridin-2-yloxy)-quinazolin-4-yl]-thiazolo-[5,4-b]pyridin-2-yl-amine,
[6-(3-methylpyridin-2-yloxy)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(methylcarbamoyl-methyloxy)-quinazolin-4-yl]-thiazolo-[5,4-b]pyridin-2-yl-amine,
[6-(3-methylsulfonylpyridin-2-yloxy)-quinazolin-4-yl]-thiazolo[5,4-b]pyridin-2-yl-amine,
[6-(3-chloropyridin-2-yloxy)-quinazolin-4-yl]-3-methyl-[1,2,4]-thiadiazol-5-yl-amine,
[6-(3-fluoropyridin-2-yloxy)-quinazolin-4-yl]-3-methyl-[1,2,4]thiadiazol-5-yl-amine,
[6-(3-chloropyridin-2-yloxy)-quinazolin-4-yl]-pyridin-2-yl-amine,
[6-(tetrahydro-2H-pyran-4-yloxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(3,5-difluoropyridin-2-yloxy)-quinazolin-4-yl]-3-methyl-[1,2,4]thiadiazol-5-yl-amine,
[6-(2-chloro-6-(methylsulfonyl)phenoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(2,4-difluorophenoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(2-fluoro-6-(5-methyl-[1,2,4]-oxadiazol-3-yl)-phenoxy)-quinazolin-4-yl]-3-methyl-[1,2,4]-thiadiazol-5-yl-amine,

Appl. No.: 10/593,540
Case No.: BY0042P
Page No.: 7

[6-(2-fluoro-4-(methylsulfonyl)phenoxy)-quinazolin-4-yl]-3-methyl-[1,2,4]thiadiazol-5-yl-amine.
[6-(2-fluoro-6-(methylsulfonyl)phenoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(2-fluoro-6-(methylsulfonyl)phenoxy)-quinazolin-4-yl]-(1-ethyl-1H-pyrazol-3-yl)-amine,
[6-(2-fluoro-6-(methylsulfonyl)-phenoxy)-quinazolin-4-yl]-pyrazin-2-yl-amine,
[6-(2-chloro-6-(methanesulfonylamino)phenoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-
amine,
3-fluoro-2-({4-[(pyrazin-2-yl)amino]quinazolin-6-yl}oxy)benzonitrile,
[6-(butyllacton-2-yloxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(2,4-difluoro-6-(methylsulfonyl)phenoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine.
[6-(2-fluoro-6-(methylsulfonyl)phenoxy)-quinazolin-4-yl]-thiazolo[5,4-b]-pyridin-2-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-[2-(methylsulfonyl)-phenoxy]quinazolin-6-yl-amine,
3-fluoro-2-({4-[(5-methylpyrazin-2-yl)amino]-quinazolin-6-yl}oxy)benzonitrile,
6-(3-chloropyridin-2-ylsulfanyl)-(1-methylpyrazol-3-yl)quinazolin-4-yl-amine,
6-(3-chloropyridin-2-ylsulfanyl)-(5-methyl-pyrazin-2-yl)quinazolin-4-yl-amine,
6-(3-chloropyridin-2-ylsulfanyl)-(1H-pyrazol-3-yl)-quinazolin-4-yl-amine,
6-(acetyl piperidin-4-yl)oxy-N-[1,3]-thiazolo[5,4-d]-pyridin-2-ylquinazolin-4-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-(pyrazin-2-yloxy)-quinazolin-4-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-(pyrimidin-4-yloxy)-quinazolin-4-yl-amine,
6-[2-fluoro-1-(fluoromethyl)ethoxy]-N-[1,3]thiazol-[5,4-d]pyrimidin-2-ylquinazolin-4-yl-amine,
6-[(3-chloropyridin-2-yl)oxy]-N-1,3-thiazol-2-ylquinazolin-4-amine,
(1-methylpyrazol-3-yl)quinazolin-4-yl-amine,
6-(1,3-benzothiazol-2-yloxy)-N-(1-methyl-1H-pyrazol-3-yl)-quinazolin-4-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-(quinazolin-2-yloxy)-quinazolin-4-yl-amine,
6-[(5-fluoropyridin-2-yl)oxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
6-[(3-chloropyridin-2-yl)oxy]-N-(5-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-(pyridin-3-yloxy)-quinazolin-4-yl-amine,
6-[(3-chloropyridin-2-yl)oxy]-N-4H-[1,2,4]-triazol-3-ylquinazolin-4-yl-amine,
6-[(5-fluoropyridin-3-yl)oxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
6-[(3-chloropyridin-2-yl)oxy]-N-[1,2,4]-thiadiazol-5-ylquinazolin-4-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-[(3-methylpyridin-2-yl)oxy]quinazolin-4-yl-amine,
6-{[3-(difluoromethyl)pyridin-2-yl]oxy}-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
N-(1-methyl-1H-pyrazol-3-yl)-6-{[3-(trifluoromethyl)-pyridin-2-yl]oxy}quinazolin-4-yl-amine,
[2-({4-[(1-methyl-1H-pyrazol-3-yl)amino]quinazolin-6-yl}oxy)pyridin-3-yl]methanol,

Appln. No.: 10/593,540
Case No.: BY0042P
Page No.: 8

6-{{3-(fluoromethyl)-pyridin-2-yl}oxy}-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
1-[2-({4-[(1-methyl-1H-pyrazol-3-yl)amino]-quinazolin-6-yl}oxy)pyridin-3-yl]ethanone,
5-chloro-2-methyl-4-({4-[(1-methyl-1H-pyrazol-3-yl)-amino]quinazolin-6-yl}oxy)pyridazin-3(2H)-
one,
6-[(6-fluoropyridin-2-yl)oxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
[3-fluoro-2-({4-[(1-methyl-1H-pyrazol-3-yl)amino]-quinazolin-6-yl}oxy)phenyl]methanol,
6-[2-fluoro-6-(fluoromethyl)-phenoxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
[3-chloro-4-({4-[(1-methyl-1H-pyrazol-3-yl)amino]-quinazolin-6-yl}oxy)phenyl]methanol,
Methyl 5-(methylsulfonyl)-2-({4-[(3-methyl-[1,2,4]-thiadiazol-5-yl)amino]-quinazolin-6-
yl}oxy)benzoate,
3-fluoro-2-({4-[(1-pyridin-2-yl-1H-pyrazol-3-yl)-amino]quinazolin-6-yl}oxy)benzonitrile,
1-[3-fluoro-2-({4-[(1-methyl-1H-pyrazol-3-yl)amino]-quinazolin-6-yl}oxy)phenyl]ethanone,
6-[(3-chloropyridin-2-yl)oxy]-N-[1-(difluoromethyl)-1H-pyrazol-3-yl]quinazolin-4-yl-amine,
3-chloro-N,N-dimethyl-2-({4-[(3-methyl-[1,2,4]-thiadiazol-5-yl)amino]quinazolin-6-
yl}oxy)benzenesulfon-amide,
6-[2-chloro-6-(ethylsulfonyl)phenoxy]-N-(3-methyl-1,2,4-thiadiazol-5-yl)quinazolin-4-yl-amine,
6-[2-fluoro-6-(methylsulfonyl)phenoxy]-N-(5-methylpyrazin-2-yl)-quinazolin-4-yl-amine,
6-[2-chloro-6-(cyclopropylsulfonyl)-phenoxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
6-[2-fluoro-6-(methylsulfonyl)phenoxy]-N-1H-pyrazol-3-ylquinazolin-4-yl-amine,
6-[3-cyclopropylpyridin-2-yl]oxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine,
[2-({4-[(1-methyl-1H-pyrazol-3-yl)amino]quinazolin-6-yl}oxy)-3-(trifluoromethyl)phenyl]methanol,
6-[2-fluoro-6-(methylsulfonyl)phenoxy]-N-pyridazin-3-ylquinazolin-4-yl-amine,
N-(5-chloropyrazin-2-yl)-6-[2-fluoro-6-(methylsulfonyl)-phenoxy]quinazolin-4-yl-amine,
[3,5-difluoro-4-({4-[(1-methyl-1H-pyrazol-3-yl)-amino]quinazolin-6-yl}oxy)phenyl]-methanol,
3-fluoro-2-({4-[(1-methyl-1H-pyrazol-5-yl)amino]-quinazolin-6-yl}oxy)benzonitrile,
6-[4-methyl-2-(methylsulfonyl)phenoxy]-N-(1-methyl-1H-pyrazol-3-yl)quinazolin-4-yl-amine.
6-(2,6-difluorophenoxy)-N-(1-methyl-pyrazol-3-yl)-quinazolin-4-yl-amine,
1-[3-methyl-2-([4-[(1-methyl-pyrazol-3-yl)amino]-quinazolin-6-yl]oxy)phenyl]ethanone,
6-[2-(fluoromethyl)-6-(methylsulfonyl)phenoxy]-N-(1-methyl-pyrazol-3-yl)quinazolin-4-yl-amine,
3-methyl-2-({4-[(1-methyl-pyrazol-3-yl)amino]-quinazolin-6-yl}oxy)benzonitrile,
Cyclopropyl[3-fluoro-2-([4-[(1-methyl-pyrazol-3-yl)-amino]-quinazolin-6-
yl]oxy)phenyl]methanone,
6-[2-fluoro-6-(methoxymethyl)phenoxy]-N-(1-methyl-pyrazol-3-yl)quinazolin-4-yl-amine,

Appln. No.: 10/593,540
Case No.: BY0042P
Page No.: 9

[6-(5-chloro-3-fluoropyridin-2-yloxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
[6-(3-fluoropyridin-2-yloxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine,
6-[2-methyl-6-(methylsulfonyl)-phenoxy]-N-(1-methyl-pyrazol-3-yl)quinazolin-4-yl-amine,
6-[2-(fluoromethyl)-6-(methylsulfonyl)phenoxy]-N-(1H-pyrazol-3-yl)quinazolin-4-yl-amine [or] and
[6-(2-fluoro-6-(methanesulfonamide)phenoxy)-quinazolin-4-yl]-(1-methyl-1H-pyrazol-3-yl)-amine.

Claims 10-13 (Cancelled)

Claim 14 (Previously Presented) A pharmaceutical composition comprising a compound in accordance with claim 1 in combination with a pharmaceutically acceptable carrier.

Claims 15-16 (Cancelled)